

Persons, J. B., Hong, J. J., Eidelman, P., & Owen, D. J. (2016). Learning from patients and practice. In L. F. Campbell (Ed.), *APA Handbook of Clinical Psychology* (Vol. Education and Profession). Washington, D. C.: American Psychological Association.

## **Learning from Practice and Patients**

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### **Definition and Description**

In this chapter, we discuss what clinical psychologists learn from the practice of their skills and from their patients. We focus primarily on learning by practicing psychotherapy, but we also discuss the development of clinical psychologists' skills in other domains, including supervision and consultation, teaching and training, research, and professional writing. Of course, clinical psychologists work in several other domains, including administration, organizational development, public speaking, and advocacy. Although we do not take up those topics here, we expect that some of the ideas we offer about skill development in the areas we do cover are likely to generalize to those domains. The theme of the chapter is how and what the clinical psychologist learns by doing.

Ericsson's (2006) model of the development of expertise provides a useful framework for thinking about how to strengthen learning through practice. An "expert" is defined in the Oxford English Dictionary as "a person who is very knowledgeable about or skillful in a particular area." Ericsson's (2006) model proposes that expertise results from several factors, including two key ones: deliberate practice and informative feedback. In deliberate practice, the person makes "deliberate efforts to change particular aspects of performance" (p. 683). The person working to develop expertise focuses on "activities that had been specifically designed to improve

performance” (p. 691), “actively seeking out demanding tasks . . . that force the performers to engage in problem solving and to stretch their performance” (p. 694).

Informative feedback means collecting data about the skillfulness of performance of the task being practiced. The best feedback is immediate and, of course, accurate. Thus, deliberate practice and informative feedback work together in tandem to improve performance. We view deliberate practice and informative feedback as inextricably tied to one another and part of a single process for developing expertise. The process involves learning a particular skill (e.g., listening empathically to a psychotherapy client or supervisee, or giving a lecture), practicing the skill repeatedly in a mindful and specific way, collecting feedback about the effects of one’s efforts, and using the feedback to correct errors and improve performance. Ericsson’s model of expertise development is supported by evidence in many domains, including sports, music, and professional writing (K.A. Ericsson, Charness, Feltovich, & Hoffman, 2006), and occupational skills such as those used by physicians, test pilots, mathematicians, and accountants.

We use Ericsson’s model to guide our discussion of psychologists’ skill development (see also Thomas (2009) and Tracey, Wampold, Lichtenberg, & Goodyear (2014)) in four domains: psychotherapy, supervision and consultation, teaching and training, and professional writing. We discuss how using deliberate practice and collecting informative feedback can improve performance, and we offer some strategies the psychologist can use to implement deliberate practice and feedback collection (e.g., data collection, self-reflection, and supervision) in each of the four domains.

### **Learning from Psychotherapy Practice and Patients**

Evidence that psychotherapy outcome is not a function of the years of experience of the therapist (Beutler et al., 2004) is consistent with Ericsson’s (2006) model, because it proposes

that experience alone -- simply meeting hour after hour and day after day and year after year with patients -- does not lead to expertise. Although experience is necessary to develop expertise, it is not sufficient. Instead, the development of expertise requires deliberate practice and informative feedback. We discuss how the psychotherapist can use deliberate practice and informative feedback in psychotherapy, by collecting feedback from patients, receiving supervision and consultation, and using self-practice and self-reflection. We focus most intensively on the topic of collecting feedback from patients.

### Learning by collecting feedback from patients

We will discuss four domains in which psychologists can collect feedback (treatment outcome, the alliance, patient and therapist compliance, and patient learning), and we offer examples of using the feedback to improve the therapist's skills and the patient's outcome. We also describe tools therapists can use to collect feedback, including one we developed.

Psychotherapists of all orientations practice their skills and collect feedback to guide and improve performance. For example, the psychodynamic psychotherapist views much of the patient's verbal and nonverbal behavior in the session as communication about the therapeutic relationship and then uses that information to guide his or her response. Depending on the therapist's conceptualization of the patient's behavior, the therapist may choose to interpret the patient's behavior, shift the intervention strategy, or adjust the conceptualization. After implementing the change, the therapist collects feedback to assess the patient's response to it. Asking explicitly for feedback about the session from the patient is a central element of Beck's cognitive therapy as shown by the fact that there is an item devoted to it on the Cognitive Therapy Rating Scale (CTRS; Young & Beck(1980)). The CTRS is also used in supervision and

research to provide feedback on the skills the therapist needs to practice to improve his performance.

Four of the psychotherapy domains in which collecting feedback and deliberately practicing skills helps build therapist expertise are: treatment outcome, the alliance, patient and therapist compliance, and patient learning. We focus on these domains because collecting feedback about treatment outcome has been shown to contribute to improved outcome, and the other three domains are themselves predictors of outcome. For each domain, we describe the domain; present some evidence that the domain or collecting feedback about that domain is related to outcome; describe strategies that can be deliberately practiced to improve the therapy process in that domain; and provide examples of things we have learned by collecting feedback in these domains that have changed our practice in important ways.

Treatment Outcome. Treatment outcome refers to the degree to which a patient reaches the goals of treatment. Typically, treatment outcome refers to reduction of symptom severity, improvement in functioning in interpersonal relationships and life roles, and increased awareness or understanding over the course of treatment. As reviews (e.g., Goodman, McKay, & DePhilippis, 2013; Carlier et al., 2012), and meta-analyses (Knaup, Koesters, Schoefer, Becker, and Puschner, 2009; Lambert & Shimokawa, 2011) have shown, when clinicians collect feedback data to monitor the progress of their patients, those patients have better outcomes. The effect has been shown in many disorders, problems, and populations, including students seeking treatment at a university counseling center, youth receiving home-based mental health treatment in community settings, patients receiving treatment for schizophrenia or related disorders in community mental healthcare in Europe, depressed patients treated in primary care settings, and couples receiving treatment at a community clinic or a training clinic. Two outcomes monitoring

systems, Lambert's OQ-45 (M. J. Lambert et al., 1996) and the Partners for Change Outcomes Monitoring System (PCOMS; (S. D. Miller, Duncan, Sorrell, & Brown, 2005) have sufficient empirical support to be included in the U. S. Substance Abuse & Mental Health Services Administration's National Registry of Evidence-based Programs and Practices (NREPP; SAMHSA, 2013). These data provide compelling evidence that deliberate practice of collecting outcome data from psychotherapy patients can improve outcomes.

Despite the benefits of collecting outcome data, most psychotherapists do not use this skill (Hatfield & Ogles, 2004). To develop and deliberately practice this skill, the therapist can design a system that makes it easy for the patient to complete an outcome measure and for the therapist to score and use it as part of the therapy. In our psychotherapy practices, we ask our patients to come five minutes early for their therapy session, pull from a storage box in the waiting room a copy of the measure the patient and therapist are using to track outcome, complete the measure, and bring it into the office. We score the measure, plot the score, and review the data with the patient at the start of the session.

Outcome monitoring data provide useful feedback about how the therapy is progressing and have been shown to be especially valuable when the patient is not making good progress (M. J. Lambert, 2010). We need more information about how the therapist uses the data when the patient is not making good progress, but we assume that they cue the therapist to take corrective action to make changes in the treatment.

In addition to guiding the treatment of individual patients, the therapist can collate her patient data and assess whether groups of patients are responding differently to treatment in order to identify ways to improve her work with a specific group, or whether the therapist needs to practice a particular skill to improve the outcomes of all her patients (e.g., assigning homework).

For example, one of the authors (JJH) is particularly interested in assessing whether her Asian-American patients differ from her Euro-American patients in treatment outcome and the process of change. In a recent analysis of her data, she found that although the two groups began treatment with comparable levels of distress, and ended treatment in the healthy symptom range, the Asian-American patients struggled more to maintain scores in the healthy range and took longer to complete treatment (Hong, Hall, Zane, & Chu, November, 2010). She also found that although the groups did not differ in levels of compliance (as measured by average degree of homework completion), the Asian-American patients contacted the therapist significantly more often between sessions for coaching or support. These data suggest that Asian-American patients may struggle more to internalize and generalize the concepts and skills learned in therapy, and require more treatment and support to achieve outcomes similar to their Euro-American counterparts. Based on these data, the therapist adjusted her work with Asian-American patients who displayed difficulties maintaining healthy symptom scores by deliberately presenting more culturally consistent metaphors to inform concepts and by increasing the amount of time spent teaching a new skill to those patients.

The alliance. Bordin (1979) defined the therapeutic alliance as consisting of three components: the tasks, the goals, and the bond of therapy. The tasks are the interventions that make up the therapy (e.g., interpretations, cognitive restructuring), the goals are the mutually agreed upon aims toward which the therapist and patient are working, and the bond is the interpersonal attachment between the patient and the therapist (including mutual positive regard, trust, confidence, etc.).

The therapeutic alliance is a reliable predictor of therapy outcome. Indeed, as recently noted by an APA Division of Psychotherapy task force, the therapeutic alliance in and of itself

represents an empirically supported intervention (Norcross & Lambert, 2011). Poor alliance can contribute to poor outcome in many ways. For instance, when clinicians strongly adhere to cognitive restructuring in the context of a weak therapeutic alliance, the alliance can be further damaged, which interferes with treatment progress (Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996).

Therapists and patients often differ in their views of the therapeutic alliance (e.g., Hatcher, Barends, Hansell, & Gutfreund, 1995). Thus, soliciting feedback from patients to learn about their assessment of the alliance can yield information that is otherwise unavailable to the therapist. Having access to this information can then help improve the alliance and guide the treatment. For example, learning that the patient views the alliance as weak can help the therapist focus on rebuilding the therapeutic alliance and possibly rescuing a failing treatment or avoiding dropout.

Some support for the notion that therapist feedback about the alliance improves outcome comes from data showing that use of Lambert's clinical support tool (which includes feedback about the alliance), helps therapists have better outcomes with failing patients than when clinicians do not use the clinical support tool (M. J. Lambert, Harmon, Slade, Whipple, & Hawkins, 2005). Additionally, research demonstrates that addressing and repairing ruptures in the therapeutic alliance improves treatment outcome (Safran, Muran, & Eubanks-Carter, 2011).

One of us (JBP) has a vivid memory of learning the importance of collecting patient feedback about the alliance very early in her career. Distracted in her office by some reading or writing she was doing, the therapist lost track of time and didn't notice until 20 minutes after the hour that her patient was waiting for her in the waiting room. She sprang up from her desk and bolted out to effusively apologize to her patient. She feared that her patient would feel ignored

and discounted and disrespected (perhaps this is how the therapist would have felt!). She asked her patient about her feelings about the therapist's tardiness. To the therapist's amazement, the patient's response was: "Oh, I'm not upset. In fact, I feel relieved. I see that you're not perfect. You sometimes make mistakes too."

This bit of feedback from the patient was hugely reassuring to the therapist in that moment. In addition, the psychologist learned two important lessons that have been useful in many moments during her professional life. One was: Don't assume what the patient's response will be to the therapist's behavior. Instead, whenever possible, collect feedback to find out. A second was: Glitches and errors often provide important learning opportunities for patients (and therapists) that can move the therapy forward in useful ways.

As part of the deliberate practice-informative feedback process, therapists who receive feedback that the alliance is weak can benefit from developing skills that directly address the weakness. One important lesson we have learned by collecting feedback from patients (a lesson that we did not learn in our training) is that therapist self-disclosure can be a powerful tool in strengthening the alliance and promoting treatment engagement and symptom change. The degree of self-disclosure by the therapist can range from a simple acknowledgement of understanding (e.g., "Yes, parenting toddlers can be hard!") to sharing of a personal story (e.g., "Yes, I completely understand. When my son was 2 years old..."). Self-disclosure also includes therapist responses to a patient's behavior in or out of session (e.g., "I'm really proud of you for taking such a challenging step forward.>").

A recent meta-analysis of 53 studies found that therapist self-disclosure has an overall favorable impact on patient perceptions of the therapy and therapist (Henretty, Currier, Berman, & Levitt, 2014). However, only two of the studies reviewed in the meta-analysis examined

clinical populations; most studies relied on analogue data. Therefore, we recommend that therapists who deliberately practice self-disclosure to improve the alliance do so with care, and collect feedback data from their patients to determine whether such self-disclosure is actually helpful to the patient and the relationship.

To this end, we offer the following suggestions. First, when sharing personal information with a patient, the therapist must have a clear rationale for why sharing such information would facilitate patient learning. Second, it is important to assess whether therapist self-disclosure is actually beneficial to the patient. One way to do this is to ask the patient, before or after sharing, whether a personal example from the therapist's experience would be/was helpful. Third, we recommend that the therapist be explicit with the patient about what the intended learning is. For example, the therapist who wants to normalize a patient's difficulties with social anxiety might say, "It can be very difficult to set boundaries with your friends and not be afraid of rejection. I have a personal example that is very similar to your situation. Would it be helpful if I shared it with you?"

Compliance. Compliance means adhering to the treatment plan and the therapist's recommendations. In cognitive behavioral therapies, homework compliance means carrying out the between-session skills practice and other assignments. Homework compliance has repeatedly been shown to predict outcome of cognitive behavioral therapies (Kazantzis, Whittington, & Dattilio, 2010). If compliance predicts outcome, it logically follows that therapist assessment of compliance, and use of that information to improve compliance, will contribute to improved therapy outcome. Assessment of the patient's compliance with homework assignments is also important because the assessment itself serves as a natural reinforcer of the patient's behavior.

Cultural factors can play a significant role in compliance. For example, a young adolescent was struggling with depressive symptoms, and he and his therapist decided on a course of behavioral activation. Despite these efforts, the therapist found that the patient was having difficulty complying with his behavioral activation homework assignments, and his depression scores remained elevated. Through feedback, the therapist learned that the patient's parents were immigrants from a culture that strongly promoted the value of interdependence within the family and, as a result, viewed his efforts to socialize more with his peers as a rejection of his parents and family. As a result of this feedback, the therapist worked with the patient to identify ways he could balance time spent socializing with his family and with his friends. His homework compliance improved, and his depression scores went down.

Although as therapists we tend to focus on patient compliance with therapy, it is also important to focus on therapist compliance. That is, asking oneself "Am I consistently implementing the treatment plan I intend to implement?" One of us (JBP) used self-monitoring in session (making a mark on an index card) to track her tendency to become excessively active in response to the passive behaviors of one of her chronically depressed patients. In this example, the therapist focused on the deliberate practice of one behavior to improve her overall performance, and collected self-monitoring data to give her direct and immediate feedback about whether she met her goals in the session. Given the data showing that homework compliance is tied to outcome, the therapist might want to practice assigning and following up with homework assignments in therapy, and using self-monitoring to track improvements in and potential obstacles to the new behavior.

Patient learning. Patient learning refers to the content of what the patient is obtaining from the treatment experience. Learning might involve facts; new conditioned associations; new

skills; or new beliefs, such as that sharing personal information with others does not inevitably lead to humiliation and subjugation. We know that treatment outcome is partially a function of patient learning. For example, outcome of cognitive behavioral therapy for panic disorder tends to be mediated by the patient's learning that somatic sensations that were feared and perceived as dangerous were in fact benign (Smits, Powers, Cho, & Telch, 2004). If outcome in psychotherapy is a function of patient learning, it makes logical sense that the psychologist will want to practice strategies known to improve patient learning, and to collect information about whether the patient is achieving the desired learning in the therapy. Without collecting this feedback, the therapist can easily make erroneous assumptions about what the patient is learning.

Feedback teaches the therapist not only about a particular case, but also teaches more general lessons about what strategies and skills may be used to improve treatment outcome. We have learned from our patients that metaphors and imagery frequently prove effective in patient learning. When we ask our patients what they remember learning in the previous session, we find that often it is a metaphor or image provided by the therapist that has stuck in the patient's mind. Concretizing the abstract as a means of illustration or as a way to help a patient relate their experience to others can improve patient learning and recall of concepts (Otto, 2000). A common metaphor is that tolerating emotions is like surfing. Although the waves of emotion can be large and overwhelming, the key is to stay on the surfboard and ride them out. Just like waves, emotions are temporary, and tolerating big emotions until they subside often produces the best outcome. We encourage therapists to deliberately practice using metaphors or examples that are personally relevant to their patients to improve learning, and then elicit feedback (from the patient or through levels of compliance or from outcome data) to assess whether the strategy is helpful.

In summary, research evidence and clinical experience converge on the point that psychotherapists can improve their performance and their ability to help their patients if they engage in the process of collecting feedback and using the feedback to decide what strategies are needed to effectively implement the treatment. We recommend collecting feedback from the patient about outcome, alliance with the therapist, compliance, and learning.

Tools for collecting feedback from the patient. Feedback can be collected in many ways. The psychologist can ask for verbal or written feedback during or after the session. The psychotherapist can collect feedback by observing the patient's verbal and other behavior in the session, by asking a question of the patient or another person (e.g., spouse, parent), or by asking the patient to complete a paper-and-pencil or online assessment scale.

All therapists collect feedback from their patients during the session, but most do so via observation and discussion with the patient. Hatfield and Ogles (2004) reported that only 37% of psychologists use an outcome assessment tool in their work. However, the research indicates that unless therapists collect real-time outcome data, they do not accurately assess it, especially when outcome is poor (Hannan et al., 2005). If the goal of collecting feedback is to inform the therapist of ways to improve the therapy, then feedback should be specific and directly relevant to the particular skill or problem the therapist is actively trying to address. For example, regular use of a written progress monitoring tool could be a skill that the therapist might want to deliberately practice as a way to gain informative and specific feedback about changes in a patient's symptoms. A therapist might begin to gradually monitor patient progress using a written tool by selecting one progress monitoring measure and asking one of the therapist's most agreeable patients to complete it before or during the next therapy session. As the therapist gains more

positive feedback about the ease and utility of the measure, he may be able to gradually increase the number of patients from whom he requests this type of feedback.

Psychologists can also ask patients to complete a feedback measure on alliance, compliance, or learning. Numerous tools to monitor treatment outcome are available (see (Antony, Orsillo, & Roemer, 2001). An easy and free solution to the challenges of selecting a feedback tool has been provided by Scott Miller and Barry Duncan ([www.scottdmiller.com](http://www.scottdmiller.com)), who developed two 4-item scales to assess outcome and quality of the alliance (S. D. Miller, Duncan, Brown, Sparks, & Claud, 2003). Their feedback system (the Partners for Change Outcome Management System) is included in the National Registry of Evidence-based Programs and Practices of the Substance Abuse and Mental Health Services Administration (SAMHSA). An online learning community for therapists, PracticeGround ([www.practiceground.org](http://www.practiceground.org)), offers tools to help therapists use and evaluate their clients' outcomes so that clinical decisions can be made based on data about clients' response to treatment.

In our own clinical work, we monitor outcome at every session, using the Depression Anxiety Stress Scale (DASS; (Lovibond & Lovibond, 1995) or another measure (see Antony et al. (2001)). We collect one or more of these outcome measures at every session, and we plot the score and review it with the patient at the beginning of the session. To collect information about process (including alliance, therapy compliance, and patient learning, as described above), we have, with colleagues, developed the Session Assignment and Feedback Form (SAFF) (Persons, Hong, Lemle Beckner, Owen, & Eidelman, 2012). Clinicians can download the SAFF at <http://cbtscience.com/training/resources/>). We are currently collecting data in our clinical practice to test the hypothesis that patients have better outcomes when they and their therapists make extensive use of the SAFF than when they use it minimally or not at all.

Regardless of the tool we choose, we find a willingness to collect, accept, and use feedback from our patients to be both challenging and rewarding. It is difficult to remember to administer the scales, and it is difficult at times to absorb unpleasant feedback, especially when patients are not getting better or are unhappy with our work. We have found that an open curious stance and a willingness to accept and learn from feedback is rewarding in several ways. First, we learn a lot from our patients that improves our work – with them and with other patients. Second, patients are impressed and grateful when we demonstrate a willingness to listen to their feedback about what is not going well for them. Third, by listening willingly and non-defensively, we can model for our patients an adaptive mode of functioning that can yield important learning. Finally, we find that the stance of “I don’t have all the answers, but I am always willing to learn,” is always available, almost always the right answer, and provides the therapist with a soothing antidote to the injunction to carry out the perfect intervention every time. We know we can’t do the correct thing every time. So long as we are collecting feedback data and willing to learn from it, we will improve our skills and our ability to relieve suffering as we go down the road of learning from our patients and practice.

#### Learning by obtaining supervision and consultation

In supervision and consultation, the psychotherapist has the opportunity to carry out deliberate practice and/or obtain feedback from other professionals in order to strengthen learning through the practice of his skills. Supervised clinical experience is part of all training programs for psychotherapists, and consultation throughout one’s professional career is widely viewed as part of high-level professional practice.

A recent review of training in cognitive behavioral therapy (Rakovshik & McManus, 2010) provided some evidence to support the notion that supervised practice is essential to the

development of competence in CBT. Evidence of the importance of supervised experience and feedback in learning motivational interviewing skills was provided by W. R. Miller, Yahne, Moyers, Martinez, and Pirritano (2004), who examined the effects of different teaching methods on learning motivational interviewing (MI) strategies. The study randomly assigned 140 individuals to one of five training conditions: 1) clinical workshop only; 2) workshop plus written feedback on individual MI performance relative to expert models and target levels of proficiency; 3) workshop plus (up to 6) individual coaching sessions from an expert who helped the trainee problem solve difficulties and provided positive reinforcement; 4) workshop plus feedback plus coaching; and 5) wait-list control condition of self-guided training through a manual and training video tapes. At post-training, all trainees who attended the workshop showed marked improvement in their levels of proficiency in using MI strategies. By 4-month follow up, however, levels of proficiency shifted significantly by condition. Those in the workshop-only condition reverted back to levels of proficiency similar to those in the untrained wait list group, whereas those in the feedback and/or coaching conditions retained their proficiency levels. When examining client responses at the 4-month follow up point, only those who received the full training package (workshop, feedback and coaching) showed significant changes in client response. The findings indicate the importance of ongoing feedback and incorporating that feedback when deliberately practicing a new skill.

Using audio and video recordings of sessions can strengthen therapist's learning from supervision and consultation (Haggerty & Hilsenroth, 2011) and improve patients' outcome (Diener, Hilsenroth, & Weinberger, 2007). Because memory is imperfect, relying on recordings rather than the supervisee's memory of the session gives the supervisor a much more accurate picture of the session and of the skills that the supervisee needs to learn and practice, and can

therefore make supervision a more effective learning experience for the supervisee (Haggerty & Hilsenroth, 2011).

Levenson (2006) emphasizes the importance of using video recordings to deconstruct the session into second by second segments to allow the supervisor and supervisee to analyze therapeutic interactions in a way that s/he cannot do in the moment or from memory of the session, and to allow the supervisor to provide detailed and individualized feedback to the supervisee about the skills the supervisee needs to practice. This type of analysis allows the supervisee to relive the therapeutic moment and learn in that condition. Furthermore, with video recording, therapists can view themselves, including their verbal and nonverbal responses, from their patients' positions (Binder, 1993). Modeling is a valuable teaching method for supervisees (e.g., by watching their supervisors act in a clinically skillful manner; Levenson & Strupp, 1999). Supervisees can benefit from viewing their supervisors' non-verbal behaviors in session because observation is a powerful learning method.

Another component to therapist learning appears to be the degree to which the therapist identifies with the material presented and sees the suggested change as personally relevant. For example, clinicians presented with a case study reporting a successful treatment outcome reported increased positive attitudes toward the treatment approach and greater willingness to be trained in it than when they were presented with a statistical review of data supporting the efficacy of the treatment approach (Stewart & Chambless, 2010). This finding suggests that therapists may not be willing to engage in deliberate practice of new skills unless they can see a direct and meaningful connection between the new skill and their own performance, which may come in the form of feedback from their own patients or examples of patient change that feels meaningful and relevant to the therapists.

### Learning from practice and self-reflection

Psychotherapists can sharpen their skills, their understanding of theory, and their understanding of their own internal processes by making personal use of the therapeutic strategies they use with their patients. This training approach can also enhance the clinician's personal development and, thereby, make her more interpersonally effective (Sanders & Bennett-Levy, 2010). A version of this idea has long been a part of training for psychodynamic therapists, who often have a prolonged experience in the patient role as they are training to become clinicians. It is also a core part of training in mindfulness-based cognitive therapy, where a meditation practice is strongly encouraged (Segal, Williams, & Teasdale, 2013). Within CBT, a growing body of research focused on self-practice and self-reflection suggests that using CBT strategies on the self and then formally reflecting on one's experience can significantly enrich learning (J. Bennett-Levy & Lee, 2014).

As developed by Bennett-Levy and colleagues (in press), the self-practice and self-reflection paradigm of CBT training focuses on the use of CBT strategies on one's self (self-practice), accompanied by written reflection on one's experience of the intervention as well as any effects practicing the intervention may have had on one's understanding of the underpinning theory (self-reflection). Extended to a classroom situation, the paradigm can also include learning by reviewing fellow trainees' anonymized self-reflections. The self-practice and self-reflection program of training works best for those clinicians who are most engaged and motivated. These clinicians tend to experience more enlightening learning moments over the course of the training, which then serve to further enhance their engagement in the training process.

Research on the self-practice and self-reflection approach to training is in its early stages, but the data currently available are quite encouraging, suggesting that self-reflection can be a valuable tool for strengthening therapist learning. For instance, Bennett-Levy and Padesky (2014) found that formal self-reflection (through the use of self-reflection worksheets) during a training workshop and in the weeks following the workshop served to enhance therapists' understanding of what taught as well as therapist use of learned skills with patients, as compared to a group of therapists who received an identical training with no self-reflection worksheets. Similarly, individuals undergoing an online training of a new program acquired a greater level of knowledge and skills when they received prompts throughout the training to self-monitor (e.g., "Am I concentrating on learning the material?") and self-evaluate (e.g., "Do I know more about the training material than when training began?"; Sitzmann, Bell, Kraiger, and Kanar, 2009). In addition to discussions with colleagues and engaging in written self-reflection, it may be the case that self-reflection following the viewing of audio and video clips of one's own work can also be used to facilitate one's engagement in self-reflection. We frequently encourage therapists we are supervising to review an audio or video clip of their sessions and make notes on their observations to bring to supervision.

In summary, psychotherapists can improve their skills and develop expertise by using deliberate practice and informative feedback in several ways: by collecting feedback from patients, obtaining feedback from supervisors and consultants, and using self-practice and self-reflection. In a review of practice improvement methods (Cape & Barkham, 2002), the use of multiple methods (e.g., use self-reflection after supervision sessions) is highlighted as most likely to improve clinician skills and patient outcomes.

### **Learning by Practicing Skills of Supervision and Consultation**

Learning by doing is widely considered to be a key way in which psychologists learn supervision and consultation skills. In fact, as Falender and Shafranske (2004, p. 72) point out, “It has been assumed that any adequate clinician can be an adequate supervisor, that one learns supervision skills from one’s own supervisors, that one can simply learn by doing.” Presumably the same view is true of consultation skills, because consultation differs from supervision primarily in that the consultant is not taking clinical responsibility for the care of the consultee’s patient.

Ericsson’s (2006) model proposes that supervisors and consultants can improve their skills as they practice them by doing deliberate practice and collecting informative feedback. One interesting study shows that therapists in training who obtained feedback from their patients about outcome and alliance and brought this information to supervision showed improved self-efficacy perceptions and client outcome as compared to therapists in training who did not track client outcome and share the data with their supervisor (Reese et al., 2009). However, using outcome tracking in supervision did not lead to improved supervisory alliance or satisfaction with supervision. The authors speculate that the use of outcome data strengthened the supervision process by helping the supervisor focus on areas where the clinician needed to improve (that is, providing feedback on particular skills that needed improvement in contrast to the more typical supervisor strategy of giving feedback that is general and positive), and on clients with whom the clinician was struggling.

One of us (JBP) uses an adaptation of the Session Assignment and Feedback Form (SAFF) that was described above in her group consultation sessions. Clinicians complete the form at the end of the session and give it to the consultant, who makes a copy for herself, and passes the original back to the consultee. The feedback has been particularly helpful to the

consultant in pointing her to the importance of working hard at each session to help each participant feel safe to describe her difficulties and ask for help in the consultation session.

### **Learning by Practicing Skills of Teaching and Training**

Psychologists can also use deliberate practice and informative feedback to strengthen skills of teaching and training. When training others, the primary goal is to maximize the learning, retention, and application of what is presented. One way to promote this is to elicit feedback from trainees and tailor the training material to match their individual needs. Casper (2007) developed a class for mental health professionals that focused on increasing participants' intention to adopt a new measure with their clients. The class featured an initial elicitation of participants' concerns and reservations about adopting the new measure, and then used that feedback to flexibly change the order and emphasis of the planned presentation topics. Casper compared the outcomes of this class with those in a standard class that received the same material in a fixed, pre-arranged manner. He found that individuals in the feedback-driven class reported greater intent to adopt the measure after the class ended and were more likely to implement the measure with their clients at 3-month follow-up than those in the standard class.

This study provides a nice example of the iterative nature of the deliberate practice-informative feedback process. The trainer deliberately practiced two skills to improve the class: 1) use of an elicitation exercise to gain feedback from the class, and 2) use of specific adaptations to the training based on the feedback. What appeared to enhance the learning outcomes was the way the trainer continually used feedback from the class to adapt the training (i.e., to improve deliberate practice of the skill) without actually changing the content of the training.

Research indicates that practitioners are unlikely to change their behavior in response to didactic lectures alone (Beidas and Kendall, 2010; Sohn, Ismail, and Tellez, 2004). Practitioners are more likely to change when the training actively engages them (e.g., via behavioral role-plays, elicitation of feedback) and addresses specific aspects of the practitioner (e.g., level of experience, attitudes toward the new behavior) and her context (e.g., amount of organizational support, client variables) to promote behavior change (Beidas & Kendall, 2010).

These results point to strategies that psychologists can deliberately practice to improve their trainings. One of us (JBP) uses self-reflection to improve her workshop skills. She spends a half hour after every training workshop she provides, listing what went well and what changes would improve the workshop next time around. She pulls these notes out and reviews them as she begins to prepare a subsequent presentation of that workshop. Of course, it's an empirical question whether this self-reflection strategy leads to improved performance, as the trainer is hoping.

### **Learning by Practicing Skills of Research and Professional Writing**

#### Research

Learning to be an expert researcher appears to be a skill that is acquired in large part through a learning by the doing process under a mentor. McFall (2006) points out that “most successful research training programs rely on an apprenticeship model, in which trainees work closely with a research mentor, conducting programmatic work on specific problems” (p. 44). A key role of the mentor is that she “evaluates and critiques ideas and work, provides corrective and timely feedback” (Brown, Daly, and Leong, 2009, p. 311).

The importance of mentoring can also be seen in the description of the Postbaccalaureate Intramural Research Training Award at the NIH (

[www.training.nih.gov/student/Pre-IRTA/irtamanualpostbac.asp](http://www.training.nih.gov/student/Pre-IRTA/irtamanualpostbac.asp)), which points out that a key element of the program is mentoring, where the mentor has multiple roles, including providing feedback, but also “help[ing] you to define your training goals at the outset and evaluate them at regular intervals throughout your training, meeting with you regularly, one-on-one, to discuss your progress towards these goals, listen[ing] to you and to your ideas, and supporting your growth through encouraging training opportunities and professional development.”

### Professional writing

Kellogg (2006) describes the application of Ericsson’s model to professional writing. He points out that the Iowa Writer’s Workshop, the earliest creative writing training program in the U.S., consistently relied on repeated effortful practice and constant feedback from teachers and peers to help writers improve their skills. He also provides examples of effortful practice and self-reflection to improve writing skills. He reports that, as a college student, Joyce Carol Oates practiced by writing novel after novel that she discarded, modelling her work on that of novelists she admired. Benjamin Franklin reported that he practiced his writing by taking careful notes while reading texts he admired, and then a few days later using the notes to reconstruct the original as much as he could.

The strategies of deliberate practice and self-reflection used by writers can almost certainly be applied to the psychologist’s development of writing skills. In fact, the general structure of the grant and peer-reviewed paper submission process is set up in a manner that pushes the psychologist to repeatedly review and rewrite portions of her submission. She is also pushed to reflect on her writing by reviewer comments. If we extend the ideas practiced in the Iowa Writer’s Workshop to psychologists, we might imagine that practicing reading one’s own papers and grant submissions as if one were a reviewer, providing the feedback to one’s self in

writing, and then practicing responding to that feedback in writing (a manner of self-reflection that mimics the review process) may further strengthen one's skills as a writer and may also increase the likelihood that one's written work leads to funding and publication.

In summary, clinical psychologists can use deliberate practice and informative feedback to strengthen their skill development as they practice their skills of psychotherapy, supervision and consultation, teaching and training, research, and professional writing.

### **Future Directions**

Several future directions may well strengthen our understanding and application of strategies to enhance clinical psychologists' learning by doing. Although we used Ericsson's (2006) model to guide our thinking about the development of expertise in clinical psychologists, the question of whether the model can in fact account for expertise in psychologists' skill development is an empirical question. Although there is a large literature on interventions that can improve outcome (e.g., progress monitoring, exposure and response prevention, empathy, assigning homework), there is surprisingly little research on how psychologists can deliberately practice implementing these interventions and use feedback to improve their delivery of them. What is lacking are specific research studies on what skills are necessary for developing expertise as a psychologist and how to effectively practice those skills by engaging in the deliberate practice-informative feedback process.

When choosing skills to practice, the psychologist will want to choose skills that have been shown to be related to the outcomes of interest, that is, skills to improve the alliance in psychotherapy, to repair alliance ruptures, or to improve supervisee skills. To identify those skills, we need research to develop and test elaborated models of the skills involved in effective performance, including those involved in psychotherapy, supervision and consultation (Falender

and Shafranske, 2004; Milne, Aylott, Fitzpatrick, and Ellis, 2008), and mentoring (Brown et al., 2009).

After the skills are identified, we need to test Ericsson's model by collecting data to show that effortful deliberate practice of the component elements of the skill while collecting and using feedback lead to improved performance that leads to improved outcomes. For example, as reviewed above, some data support the notion that supervision and consultation contribute to improved psychotherapy skills, but we have little or no data showing that these skills translate to improved patient outcomes (Watkins, 2011). We also need more research on how to use feedback information to improve performance (Lambert et al., 2010).

Another future direction is the use of technology to make it easier to carry out deliberate practice and collect feedback, as well as to facilitate supervision, consultation, self-practice, and self-reflection. For example, computer software now makes it possible for a teacher to collect feedback from the student about her response to the material presented in the last 10 minutes and to use that information to guide decision-making about what material would be most helpful for students to obtain in the next minutes of the class. Similarly, online progress monitoring tools and apps make the collection of patient outcome data easier for clinicians, supervisors, consultants, and other teachers and trainers. These programs can allow practitioners to get real time feedback from patients and consultation from experts. New small and inexpensive video cameras that are easy to use, as well as audio recorders built into our smart phones and those of our clients, make it easier than ever to audio or video record our work for review in supervision and consultation and for use in practice and self-reflection exercises. Access to training and expert supervision and consultation via Skype and other online technologies can facilitate psychologists' learning from experts around the world.

In summary, Ericsson's (2006) model of expertise can guide clinical psychologists in continuing to learn from patients and practicing psychotherapy, supervision and consultation, teaching and training, research, and professional writing. Using deliberate practice and informative feedback offer the best evidence-based means to do so, and we trust that future empirical investigations will strengthen our understanding of the most effective ways of doing so.

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